Approved For Release 2002/06/13: CIA-RDP68B00724R000200180006-5

SECRET IDEALIST

IDEA-0243-69 Copy 4 of 4

26 March 1969

LESSON TITLE

: Aeromedical Programs

DIVISION

: Aeromedical Staff/OSA

INSTRUCTORS

:

25X1A

DATE/TIME/PLACE : 1 April 1969/1345-1630/D/SA Conference Room

### PART I - OVERVIEW

1. LESSON OBJECTIVE: The objective of this lesson is for each student to become familiar with programs of the Aeromedical Staff/OSA. Specifically, the student will become familiar with the general physiological requirements for life-support equipment, the life support system developed for and used in

25X1A

PROJECT IDEALIST,

- 2. INSTRUCTIONAL AIDS: Vu-Graph Slides and overhead projector, 35 mm Slides and projector, 16 mm Movie and Projector.
  - 3. TIME REQUIRED: 2 hours 45 min.
- 4. PLAN OF PRESENTATION: The instructor will introduce the lesson by describing the overall or ganization and function of the Aeromedical Staff. Life-Support Programs will be discussed in detail by describing the physiological requirements for IDEALIST

25X1A

# Approved For Release 2002/06/16 Fel Approved For Release 2002/06/1

life-support equipment, i. e., total barometric pressures, altered partial pressures, thermal balance, and protection during emergency ejections. In order to correlate physiological requirements with equipment in use, the lifeesupport system as used in the U-2R will be discussed in detail.

25X1A

### PART II - TEACHING GUIDE

- A. INTRODUCTION
  - 1. Aeromedical Staff: Organization and Function
  - Life-Support Program Overview:

Equipment types and categories

- a. Aircraft Systems
- b. Aircrew Systems
- c. Training
- B. Physiological Requirements for Life-Support Equipment
  - 1. Total Barometric Pressure
    - a. Mechanical effects of Pressure Change
      - (1) Areas affected
      - (2) Prevention/Protection
  - 2. Altered Partial Pressures

IDEALIST SECRET

## SECRET Approved For Release 2002/06/12 CMS RDP68B00724R000200189006253-69 Page 3

- a. Decompression sickness
  - (1) Areas affected
  - (2) Protection/Prevention
- b. Boiling of Body Fluids
  - (1) Areas affected
  - (2) Protection
- c. Hypoxia
  - (1) Cause and Effects
  - (2) Protection
- 3. Thermal Balance
  - a. Heat Loads
  - b. Heat Loss
  - c. Protection
    - (1) From Heat
    - (2) From Cold
- 4. Escape Provisions
  - a, Hazards
    - (1) Decision
    - (2) Decompression
    - (3) Separation
    - (4) Windblast
    - (5) Deceleration
    - (6) Spin

IDEALIST SECRET

### Approved For Release 2002/06/18 CHARDP68B00724R000200180006-5 IDEA-0243-69 IDEALIST

Page 4

- (7) Hypoxia
- (8) Frostbite
- (9) Parachute Opening Shock
- (10) Parachute Landing and Canopy Release
- (11) Survival
- A DESCRIPTION OF U-2R LIFE-SUPPORT EQUIPMENT
  - 1. Pressurization/Air Conditioning/Ventilation System
  - 2. Oxygen System
  - 3. Ejection System
  - 4. Pilots Protective Assembly
  - 5. Emergency Oxygen System

25X1A

6.	Survival	Equipment
----	----------	-----------

IDEALIST SECRET

### Approved For Release 2002/06/13 : CIA-RDP68B00724R000200180006-5

### IDEALIST SECRET

	-0 <b>243-6</b> 9	
Page	3	
	F	

25X1A

	'	
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1
		- 1